

## FACT SHEET

### Quail Valley Sewer Improvements Alternatives Study dated October 2005

*Prepared for Eastern Municipal Water District - Prepared by PBS&J*

**Quail Valley Community:** The community of Quail Valley is located in southwestern Riverside County, immediately north of Canyon Lake. Current population is estimated at about 4,400 in approximately 1,400 homes. There is significant growth potential, since less than one-third of the 3918 residential parcels have existing homes. Eastern Municipal Water District (District) provides water for the community. All residences within the community are on individual septic systems.

**Septic System Failures:** Failing septic systems in Quail Valley have resulted in polluted water in the community and in downstream Canyon Lake, a potable water supply reservoir for Elsinore Valley Municipal Water District. Quail Valley falls within the District's boundary. The California Regional Water Quality Control Board, Santa Ana Region (Regional Board) is considering a prohibition of septic systems in this area. Prior to issuing the prohibition, the Regional Board has asked the District to investigate the feasibility of installing a public-owned sewer system.

**Sewer Improvements Alternatives Study:** The District hired PBS&J to prepare a study to identify and evaluate the collection system within Quail Valley. The objective of the study is to find a feasible solution to the problem of septic system pollution. The Quail Valley area poses some significant challenges for installing sewer in the areas of failed septic systems. These challenges include 1) retrofitting existing systems, 2) high density communities, 3) sizing systems for ultimate development, 4) difficult terrain, and 5) soil conditions include bedrock, boulders and high groundwater. All of these factors add incremental costs to the overall construction and operations of these sewers. Considering the various constraints, a preliminary screening identified the following four concepts for further evaluation:

- Conventional Gravity
- Vacuum Sewer System
- Low Pressure System
- Combination Sewer System

The Conventional Gravity and the Combination Sewer System alternatives were the most feasible alternatives to be considered for the design of the sewer system for Quail Valley. The estimated costs for the alternatives are presented in the following table.

Alternative	Capital Costs	Life Cycle Costs*
Conventional Gravity	\$60 Million	\$70 Million
Combination Sewer System	\$44 Million	\$66 Million

*\*The present worth of long term operation, maintenance and replacement costs over 60 years.*

Spreading the project costs over the ultimate development of parcels to be served is estimated at approximately \$90 to \$150 per month per lot.

**Funding Opportunities:** There are significant costs for installing sewers in Quail Valley and the proposed prohibition of septic systems drives the need to install these sewers. Therefore funding is the major concern. The District and the Regional Board are seeking supplemental funding opportunities, such as, low interest loans, grants, assessment districts and supplemental environmental projects.

**Note:** *The study is available on the District's website at [www.emwd.org](http://www.emwd.org).*